

Merlon Auto Reload System (MARS)



Integrated set of management tools for HPE NonStop SQL databases

KEY BENEFITS

- Improve Efficiency
- Eliminate analysis overhead
- Reduce Risk
- Reduce Errors
- Reduce Costs
- Advanced Technology

KEY FEATURES

- Reload Objects Automatically
- Granular scheduling of file selection and reloads
- Identify files by name, size, type, owner, TMF protected
- Ensure critical files are reloaded first
- Restrict reloads to specific CPUs
- Control and monitor the progress of reloads
- Stop and restart reloads with a single command
- Audited activities



Most application databases include key-sequenced objects on which records are added and deleted on a regular basis. Over time, this can degrade database organization, impacting access times and increasing the performance overhead of using those objects. Disk space, allocated for deleted records, can also become unavailable.

Manual methods increase the risk of human error and degrades system performance. Analysis and reload of those objects has a relatively high resourced cost. Automating these activities improves system performance and staff productivity.

The MARS Solution

The Merlon Automated Reload System (MARS) monitors and corrects database degradation. MARS continuously monitors the health of key-sequenced database objects using advanced data sampling and reloads those objects when appropriate.

Upon detecting that a file is disorganized, MARS will reload it without operator intervention and with minimum system overhead. MARS can be configured to ensure that critical database files are reloaded in the correct order for the application.

Improve Efficiency, Reduce Costs

MARS is easy to install and configure. Users can immediately take advantage of improved online application response times, reduced system overhead and reduced human intervention.

Reload Objects Automatically

MARS performs a health check on key sequenced database objects. It detects four conditions that may indicate that an object needs to be reloaded, MARS then schedules a reload for that object.

- The number of index levels is too high
- There is too much slack space
- The data blocks in the file are disordered
- Excessive free block detection
- Previous SQL table maintenance has left unused space

Filter Database Objects

The database objects that MARS reviews, and possibly reload, can be filtered by their attributes so that MARS only accesses the objects as desired by the user.

Track Activity History

The MARS server maintains a log of the activities performed, which can be viewed through the MARS client, providing both an immediate view of MARS processing as well as the ability to review past events.

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“Automating reloads with MARS has saved us so much time!”

-DBA, Healthcare Industry

“Panic Button” Control

File reloading can be a resource-intensive task. MARS-initiated processing can be suspended with a single command from the MARS client, then resumed with another single command.

Advanced Technology

MARS is a client/server application. The server runs on an HPE NonStop system as a NonStop process pair. It monitors files and reloads them as required. The client runs on a PC under Microsoft® Windows®, which is used to configure MARS and to get status information about its operation.

MARS periodically scans selected SQL objects and Enscribe files, filtering important objects to identify those that may need to be reloaded.

MARS uses advanced algorithms that estimate the slack, disorder and free space within a file without the need to read all the data in the file. This eliminates the overhead associated with other analysis techniques.

File reloads are performed using the standard online reload server (ORSERV), that comes as part of the NonStop operating system. MARS has a built-in scheduler that controls the number of reloads that can run concurrently and the CPUs that are used for reloads within specified time ranges, referred to as processing windows. If a reload has not completed at the end of a processing window, it will automatically be suspended, then resumed at the start of the next scheduled window.

MARS limits and balances online reload servers by CPU, Disk and TMF audit trail, as well as suspending reloads when those resources are too busy. The user has complete control over the parameters used to control reload operations.